

Alcohol and Other Drugs

Health Objectives for the Year 2010: Reduce death, injury, and socio-economic consequences of alcohol and other drug abuse. Educate the public on the dangers of alcohol and other drug abuse.

Health Implications

The public health impact of the misuse of alcohol and drugs is extremely significant. It is estimated that 18 million Americans are currently alcohol dependent and an additional 3 million Americans are estimated to have serious drug problems.¹ Approximately 100,000 people die each year in the United States as a result of alcohol abuse alone. Illicit drug abuse and related acquired immunodeficiency syndrome (AIDS) deaths account for another 12,000 deaths. Substance abuse costs every person in the United States nearly \$1,000 annually to cover the costs of health care, law enforcement, motor vehicle crashes, crime, and lost productivity.²

Many serious health and social problems are also related to substance abuse. Substance abuse has been identified as a cause of cancers that until recently were thought to be unrelated. Alcohol and illicit drug use also increases the risk for heart disease, stroke, and hypertension. Heavy alcohol use increases the risk for hepatitis B and C, cirrhosis, and various other liver disorders. Cocaine use can produce cardiac irregularities and heart failure, convulsions, and seizures. Cocaine use temporarily narrows blood vessels in the

brain, contributing to the risk of strokes as well as to cognitive and memory deficits. Long-term use of drugs can also result in chronic depression, sexual dysfunction, and psychosis.²

The rate of alcohol-related fatalities has declined since 1987 but still remains a serious problem in the United States. The rate for the United States in 1996 was 6.5 fatalities per 100,000 population, which is down from 9.8 per 100,000 in 1987. Since 1982, the alcohol-related traffic fatality rate for youth has decreased by over 50%. The National Highway Traffic Safety Administration (NHTSA) estimates that since 1975, more than 16,500 lives have been saved by minimum drinking age laws.²

Alcohol-related A & B injuries contribute greatly to the use of emergency rooms and health care costs. "A" injuries are defined as disabling, and "B" injuries are defined as visible but not disabling in the injury severity codes reporting system of the Nebraska Department of Roads. In addition to health care costs, these types of injuries often cause families intense emotional and financial strain because the injuries result in permanent disability.²

Approximately 20% of all traffic crashes involving a driver under age 21

Table 1. Alcohol and Other Drugs Indicators

	Lancaster Recent	Lancaster Objective 2010	Nebraska Recent	Nebraska Objective 2010	National Recent	National Objective 2010
Alcohol-related motor vehicle incidents						
Fatalities per 100,000 population	3.3 ¹	2.9	6.3 ²	--	6.5 ³	2.9 ⁴
A & B injuries per 100,000 population	71.6 ⁵	63.0	70.0 ²	--	121.0 ⁶	65.0 ⁴
Crashes per 100,000 population	55.8 ⁵	48.0	74.7 ²	--	--	--
Percent reporting alcohol use in the past month						
9–12 grade students	48.2 ⁷	37.0	56.4 ⁸	--	50.8 ⁹	--
Percent reporting binge drinking in the past month						
16–20 year-olds	31.6 ⁷	23.5	42.1 ⁸	--	33.4 ⁹	--
18–25 year-olds	26.3 ¹⁰	18.0	--	--	32.0 ¹¹	18.0 ⁴
Percent reporting driving after drinking alcohol in the past month						
16–20 year-olds	-- ¹²	20.0	--	--	--	--
21–34 year-olds	-- ¹³	35.0	--	--	--	--
Percent reporting marijuana use in the past month						
9–12 grade students	23.7 ⁷	15.0	15.6 ⁸	--	26.2 ⁹	--
18+ year-olds	-- ¹³	10.0	--	--	--	--
Percent reporting using inhalants one or more times during lifetime						
9–12 grade students	18.0 ⁷	9.0	19.9 ⁸	--	16.0 ⁹	--
Percent reporting using methamphetamines one or more times during lifetime						
9–12 grade students	-- ¹⁴	6.0	--	--	17.0 ⁹	--
18+ year-olds	-- ¹³	5.0	--	--	--	--

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involves alcohol. Crashes with a driver under age 21 that are attributable to alcohol cost \$18.2 billion per year.¹⁰

Alcohol-related fatal crashes are not limited to drivers and passengers in motor vehicles. Alcohol involvement was reported in 45% of the pedestrian fatalities reported in the nation. Pedestrians were intoxicated in 29% of these fatalities, 12.5% involved drivers who had consumed alcohol, and both the driver and pedestrian were intoxicated in 3.5% of the crashes.⁹ Approximately \$289 million is spent on alcohol-related accidents involving pedestrians and cyclists under the age of 21.¹⁰

Inhalant use is a popular substance abused by youth in rural areas of the West and Midwest.² Inhalant use can cause damage to the heart, kidney, brain, liver, bone marrow, and other organs. Users can also suffer from "sudden sniffing death syndrome," which is a result of the sudden and unexpected disturbances that inhalants have on a heart's rhythm. Inhalant use can be physically and psychologically addictive and cause users to experience withdrawal symptoms.¹¹

Methamphetamine speeds up the central nervous system, causing physical and psychological effects. The effects that attract users to meth are an increased level of energy and alertness, decreased need for sleep, a feeling of euphoria, and increased sexuality. These effects seem appealing at first, until users realize that the harmful effects of meth greatly outweigh the benefits. Meth is extremely addictive because users often continue taking the drug to avoid the inevitable crash that comes when the positive effects of meth begin to wear off. Even first-time users can experience many of the meth's negative effects.¹³

Many unintentional injuries also result from substance abuse. Impaired behaviors can lead to injuries resulting from falls, fires, and drownings. Approximately 22% of victims of accidental

fatal boating incidents were intoxicated at the time of the accident.²

The victims of drug and alcohol abuse are not limited to the user. Fetal alcohol exposure can lead to a plethora of alcohol-related disabling conditions, including fetal alcohol syndrome (FAS). FAS is characterized by poor motor coordination, facial deformities, growth deficiencies, and cognitive and behavior problems.¹ More information on the health implications of FAS can be found in the Maternal and Child Health section of this report. Substance abuse has been identified as a risk factor for abusive and violent behavior, a factor in one-half to two-thirds of homicides, suicides, and serious assaults. There is also a correlation between problem drinking and social problems, such as domestic violence and child abuse and neglect.²

The combination of alcohol use and sex can be potentially dangerous. This combination can lead to unintended pregnancies, the spread of human immunodeficiency virus (HIV) and other sexually transmitted diseases (STDs), and unwanted sexual experiences. Alcohol use has also been related to a failure to use condoms. Women are almost twice as likely as men to report having engaged in sexual activities and having abandoned safe-sex techniques when under the influence of alcohol.³

Children learn at an early age which drinking behaviors are socially accepted by their community (i.e., where, when, why, how much, and with who). They also learn about the normative standards or expectations held by the community. These expectations will either encourage or inhibit drinking in particular situations. Parents are often reported by adolescents as being the person who offers them their first drink of alcohol, but once alcohol use has been initiated, imitation of one's peers becomes the dominant social influence.⁴ Adolescents obtain alcohol most commonly from older siblings and friends, usually at parties. Alcohol at parties is

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typically associated with low cost per drink when alcohol is supplied in kegs. Most young adults respond that they would buy for someone younger than them. This is considered to be “returning a favor,” since someone once purchased alcohol for them.⁵

Perceived acceptance of alcohol use among family, peers, and society greatly influences youth to use or avoid alcohol.² Youth who consume alcohol at an early age are at greater risk of addiction and problems with alcohol later in life. Age of first easy access to alcohol has also been found to relate to higher rates of drinking later in life. Alcohol use among adolescents can lead to physical fights as well as unintended and unsafe sexual activity.⁵

Risk factors that contribute to adolescent initiation to and use of alcohol and other drugs are environmental and community factors (economic and social deprivation, community norms, and standards favorable toward drug use), familial factors (family history of addiction, family management problems, parental drug use, and positive attitudes toward use), and individual factors (friends who use drugs, favorable attitudes toward drug use, school failure, and early age of first use).⁶

Alcohol and drug use at an early age increases one’s risk of addiction or problems later in life. First easy access to alcohol at an early age is related to later rates of drinking.⁵ Half of the binge drinkers in colleges were already binge drinkers when they were seniors in high school.⁷

As with alcohol use, perceived societal acceptance and expectations of binge drinking can influence youth to participate in this high-risk activity.² High school students who participate in binge drinking are likely to continue binge drinking in college or young adulthood.⁷ Binge drinking can lead to many problems, including death, motor vehicle incidents, unintentional injuries, unintended and unsafe sexual activity, physical fights, arguments, and academic failure.⁷

Drinking patterns within a population are reflective of policies, institutional structures, and social norms regarding alcohol use and sales within the community. While it is important to see more fundamental change with regard to prevention efforts for risky drinking practices, it is also beneficial to focus on social environments and policies that influence individual attitudes and behaviors surrounding alcohol use.⁸

Current Status and Trends

In 1997, among fatal crashes, 50% involved alcohol in Lancaster County. This total is well above the estimate of 39% alcohol involvement in fatal crashes in the nation and the estimate of 31% for Nebraska. However, for all crashes reported – including not only fatalities, but injury and property damage incidences – both Lancaster County and Nebraska figures estimate only a 4% alcohol involvement. This is less than the national estimate for alcohol-related crashes which is 7% of all crashes.⁹

According to the Youth Risk Behavior Survey (YRBS) in 1997, alcohol use and

binge drinking among high school students in Lancaster County were comparable to national averages and lower than Nebraska rates. Binge drinking is defined as having five or more drinks of alcohol in a row within a couple of hours. Alcohol use during the month prior to the survey was reported by 48.2% of students in Lancaster County, and 31.6% reported binge drinking in the month prior to the survey. Nationally, 50.8% of students reported using alcohol and 33.4% reported binge drinking. Nebraska high school students reported 56.4% using

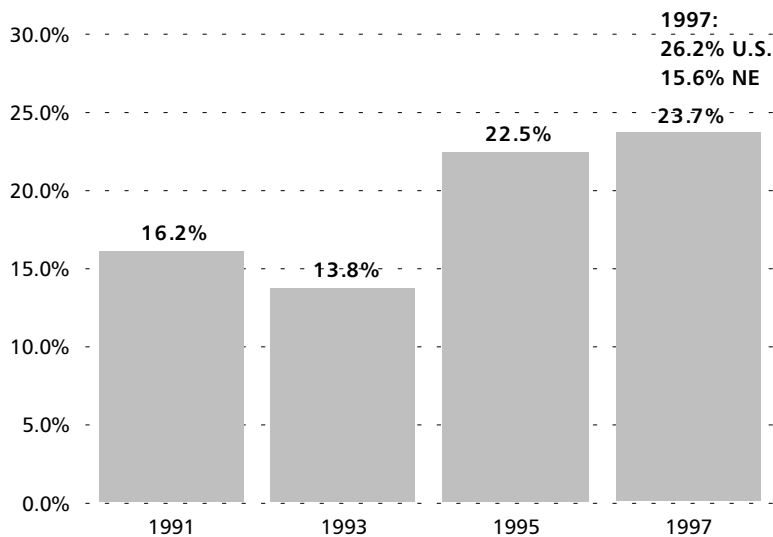


Figure 1: Marijuana use in Lancaster County. Percent of students using marijuana in the past 30 days.¹

alcohol and 42.1% binge drinking. Alcohol use and binge drinking have remained fairly stable over the past ten years among Lancaster County students.

Binge drinking is more prevalent among young adults (18–25) in Lancaster County than in the nation. The national rate of binge drinking for this population is 32.0%, and 26.3% of young adults reported binge drinking in the month prior to the 1999 Behavior Risk Factor Survey (BRFS) in Lancaster County.

An estimated 2.5 million Americans used marijuana for the first time in 1996. Marijuana use has been increasing since 1991 in the United States. The increased rates of use during the 1990s seem to reflect primarily from the increasing rate of new use among youth.

An estimated 11.1 million Americans reported using marijuana during the past month in 1997. This is approximately 5.1% of the population age 12 and older. Marijuana is the most commonly used illicit drug. The 1997 survey

data found that among current illicit drug users, 80% were marijuana users.¹⁰

Marijuana use among adolescents is a concern in Lancaster County because of an increase over the past ten years among high school students reporting use in the month prior to the survey. In 1997, according to the YRBS, 23.7% of students surveyed reported recent marijuana use compared with 16.2% in 1991 (see fig. 1). This rate is higher than the 15.6% self-reported rate of marijuana use by Nebraska students the month prior to the 1997 survey but slightly lower than the 26.2% reported by students in the nation.

Law enforcement intelligence data and treatment admissions indicate a rise in youth and adult methamphetamine use. Methamphetamine use is a growing state problem. This is demonstrated by the increase in meth lab seizures during the past two years. In 1997 two meth labs were seized, while in 1998 thirteen were seized. Meth is cheap and easy to make; therefore, the drug manufacturers and dealers are able to make the drug extremely appealing to youth.¹²

In 1997, Lancaster County high school students reported higher rates of inhalant use one or more times during their lifetime than did students nationally but lower rates than students in Nebraska. Inhalant use (including sniffing glue, breathing the contents of aerosol spray cans, or inhaling any paints or sprays to get high) was reported by 17.9% of Lancaster County students, with the greatest percentage being reported by younger students. Nationally, 16.0% of students reported inhalant use compared with 19.9% of Nebraska students.

YRBS data have consistently indicated that substance abuse is more likely to be reported by males than by females, except for inhalant use. Table 2 shows a comparison of the YRBS results by sex for 1997.

Table 2: Alcohol and other drug use in Lancaster County, male and female comparison, 1997.¹

	Males	Females
Alcohol use	51.0%	45.9%
Binge drinking	35.2%	28.5%
Marijuana use	26.1%	21.6%
Inhalant use	16.3%	19.3%
"Other" illegal drug use	21.2%	17.1%

Health Disparities

Minority and ethnic members of the Lancaster County community are faced with challenges regarding alcohol and substance abuse. Typically, members of these communities report higher rates of use and resulting negative health consequences. This population is also more commonly exposed to the influences surrounding substance use than are groups in other areas of Lancaster County.

Nationally, the highest rates of alcohol-related motor vehicle fatalities per 100,000 population were found among Native-Americans (28.0%) and Asians (19.6%), while African-Americans and Whites reported the lowest rates at 6.2 per 100,000 population.²

According to the YRBS, during the past ten years nonwhite or Hispanic students have consistently reported greater rates of use for marijuana and “other illegal drugs” than have their white counterparts. Reported marijuana use has increased at similar rates between nonwhite or Hispanic students and white students. In 1997, nonwhite or Hispanic students reported 48.4% had used marijuana in the past month while 37.2% of white students reported use. Reported “other illegal drug” use has remained fairly stable among the two populations during the past ten years, but the nonwhite or Hispanic rate remains higher than the white rate. In 1997, 18.4% of white students reported

using one or more of the “other illegal drugs” at least once during their lifetime, while 25.8% of nonwhite or Hispanic students reported use.

Differences in reported rates for white and nonwhite or Hispanic students according to the 1997 YRBS results are shown in Table 3.

The 1994 Minority Behavior Risk Factor Survey (MBRFS) and the 1995 BRFS show a significant difference in young adult (aged 18–25) reported binge drinking in the month prior to the surveys. The white rate reported from the BRFS was 34.3%, while the non-white or Hispanic rate reported from the MBRFS was 71.2%.

Many of the poorer and less economically developed neighborhoods in Lancaster County have higher percentages of ethnic and minority populations than other areas of the county. Higher concentrations of alcohol outlets are typically found in these poorer neighborhoods. Alcohol is thus more accessible and more aggressively promoted to these populations.⁸ Areas where alcohol outlets are more concentrated also reflect more alcohol-related problems. Evidence shows that areas with greater outlet densities have greater alcohol related crashes, assaultive violence, youth violence, and alcohol-related pedestrian injuries.¹⁴ The community needs to evaluate the concentration and distribution of alcohol outlets in these neighborhoods and then examine zoning laws and economic development within the poorer areas.⁸

Table 3: Alcohol and other drug use in Lancaster County, White/Nonwhite or Hispanic comparison, 1997.¹

	White	Nonwhite or Hispanic
Alcohol use	47.5%	53.2%
Binge drinking	31.4%	32.3%
Marijuana use	37.2%	48.4%
Inhalant use	24.2%	17.2%
“Other” illegal drug use	18.4%	25.8%

Public Health Infrastructure

Behavior trends are generational and reflect strong community norms. To effectively change the trends in alcohol and drug use or related behaviors, the community norms need to be changed. To establish what are the community norms, we must first discover the norms, and the most beneficial way to do this is to simply ask the public. By determining the perceptions of our community and correcting any misperceptions based on facts, we will be able to uncover the underlying force of the community norms and begin changing the norms.

Adult drinking and driving is hard to assess based on the current question in the Behavioral Risk Factor Survey. It has

been proposed to include a question on a community survey that replicates the question in the Youth Risk Behavior Survey: "During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?"

It has also been proposed to use the community survey to ask about adult marijuana and methamphetamine use. It would be preferable if these questions also replicated the questions asked in the Youth Risk Behavior Survey: "During the past 30 days, how many times did you use marijuana?" and "During your lifetime how many times have you used methamphetamines (also called speed, crack, crank, or ice)?"

Recommendations

- ♦ Implement a more collaborative community effort to address broad alcohol and drug-related issues and provide multisystemic prevention and treatment initiatives.
- ♦ Develop new proactive programs and continue to provide assessments, interventions, treatment, and referrals for Lancaster County citizens including children, youth, parents, and racial and ethnic minorities.
- ♦ Emphasize strength-based support systems, including family support, to reduce high-risk behaviors based on genetics, family history, and environment.
- ♦ Assess community norms relating to underage drinking and perceptions of dangerous behavior through a community survey. Develop strategies to pull together community networks to change this community norm, if necessary.
- ♦ Determine a method to track adult methamphetamine use to create baseline data for future indicators.

Notes

Table 1

-- Currently no data source.

1. Nebraska Office of Highway Safety, 1996–1998.
2. Nebraska Office of Highway Safety, 1996.
3. U.S. Dept. of Health and Human Services, Office of Public Health and Science, *Healthy People 2010 Objectives: Draft for Public Comment*, September 1998. Fatality Analysis Reporting System, Department of Transportation, 1996.
4. U.S. Dept. of Health and Human Services, Office of Public Health and Science, *Healthy People 2010 Objectives: Draft for Public Comment*, September 1998.
5. Nebraska Office of Highway Safety, 1998.
6. U.S. Dept. of Health and Human Services, Office of Public Health and Science, *Healthy People 2010 Objectives: Draft for Public Comment*, September 1998. General Estimates System, Department of Transportation, 1996.

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Related discussion or indicators are located in the chapters on *Maternal and Child Health* and *Sexual Behavior*.

7. Lincoln–Lancaster County Health Department, Youth Risk Behavior Survey, 1997.
8. The Buffalo Beach Company, The 1997 Youth Risk Behavior Survey: Summary Tables of Nebraska Data, 1997.
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10. Lincoln–Lancaster County Health Department, Behavioral Risk Factor Survey, 1999.
11. U.S. Dept. of Health and Human Services, Office of Public Health and Science, *Healthy People 2010 Objectives: Draft for Public Comment*, September 1998.
12. National Household Survey on Drug Abuse (NHSDA), SAMHSA, 1996.
13. Currently no data source. Could be obtained through a combination of currently obtainable Youth Risk Behavior Survey data and the development of a community survey tool.
14. Currently no data source. Could be obtained through a community survey tool.
15. Currently no data source. Data will be available from the 1999 Youth Risk Behavior Survey.
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26. *Costs of Underage Drinking*, The National Clearinghouse for Alcohol and Drug Information, 1998 <<http://www.health.org/costs/text.htm>> 2 September 1999.

Table 2–3 and Figure 1

1. Lincoln–Lancaster County Health Department, *Youth Risk Behavior Survey*, 1997.

Narrative sources

1. Nebraska Department of Health. *Nebraska Year 2000 Health Goals and Objectives: A MidCourse Review*. Nebraska Department of Health, 1996.
2. U.S. Department of Health and Human Services. *Healthy People 2010 Objectives: Draft for Public Comment*. U.S. Department of Health and Human Services, 1998.
3. P.W. Meilman, "Alcohol-induced Sexual Behavior on Campus." *Journal of American College Health* 42, 1993, pp. 27–31.